

then again they don't like to appear before the ladies as being taught and they drop out of the class. Our experience on that point is the same as yours. While we give them training, it is against their wishes.

President Johnstone: I feel that I ought to say a word as to the informality of the meetings we hold. The effort is made to make them as informal as possible. I was told by the president of our board that I would find discipline lacking if there was as much informality as I set out to have, but I have not found it so. For example, at our farmers' meetings a box of cigars is passed around, and I think that the cigars are well paid for by the fact that it puts the men all at home. They sit there and smoke and talk, and there is no noticeable head to the meeting. Everyone asks questions, and all I have to do is to be on the alert not to let the thing fade away or die out. That same informality, although not with the cigars,—that same principle is carried out in all our meetings, excepting the formal monthly employees' meetings. Those are necessarily formal.

In reference to the difficulty spoken of by Dr. Rogers in getting the teachers and attendants to bring out the facts regarding their work, we have tried to help them by asking them certain definite things in regard to an individual child. The teachers and attendants are not conscious of the fact that these questions are being asked under a certain form, but I have a list of questions that I know of that I keep passing out, and the head of the school department or assistant superintendent all have certain questions, certain routine questions that we keep asking from time to time in the course of the meeting, such as, "Does this little girl like to be with the boys?"; "How does she get along with her companions?"; "Is this boy inclined to make fun of those that are with him?" and a hundred and one little points that all go to show a child's standing and ability in the department. It doesn't take very long to get the folks into the way of talking about those little things, those things which, as has been said, are not considered to be of sufficient importance to be mentioned in a paper at all. I have just one thing more to speak of in the line of what Dr. Rogers said in regard to the graduation of men in the nurses' class. We find also that the men are not very much interested in things that require apparent education on their part, things that bring out their ignorance, little things. They don't take any interest in them, and don't want to have anything to do with them, so we are not giving a course of study similar to that given by Dr. Rogers, Dr. Murdoch or Dr. Mogridge, I believe, but are keeping tab on all our employees, and then at the end of two years granting diplomas for general institutional efficiency. And that tab covers practically all of the points excepting the fact of their taking the studies and quizzes, and those studies they must make a certain record in, up to a certain standard during those two years' time. This goes to all the employees in the institution under the official force. At our last meeting, the janitor received a diploma for efficiency as an institutional janitor. The meeting before that the fruit man, the fruit hand, we might call him that is on the farm, received a diploma. He stood there before the rest of the employees and received his diploma with tears in his eyes. He said to

me, "This is the first time I ever had a diploma in my life." So that these people feel their ignorance and in this way feel they have an opportunity to get hold of something that can be framed, as some of them have done, and put up on the wall in their rooms. It means as much to them as the diploma of a graduate of a law or medical school.

A BORDER-LINE CASE—ON THE RIGHT SIDE OF THE LINE.

BY DAVID F. LINCOLN, M.D.

IN visiting one of the "special" classes maintained for backward and defective children by the Boston School Board, in 1900, my attention was called to a boy of fourteen, who seemed unlike the others. Among a group of children whose physical defects well matched their dullness and silliness, he alone was dignified, self-possessed, and keenly and intelligently observant of everything that happened in the room; although exceedingly backward in his studies. I subsequently learned the following details in his case:

The boy's father was capable, but a drunkard, and died of consumption when the boy was four years old. A well-to-do uncle had never been able to learn to read. The mother, brother and sister were intelligent and capable. The boy was slow in learning to talk, and at the age of four used only the simplest words, as mama, papa. As a child he was delicate, suffered from throat complaints, and in school was excessively dull and sleepy, and made no progress. Adenoids were removed, at the age of twelve, without improvement in scholarship. Two years later, by advice of his family doctor, he was sent to the Massachusetts School for Feeble-Minded. He was not seen by Dr. Fernald at that time; but he decided for himself that it was no place for him, and on the fourth day ran away home, a distance of ten miles, and was not sent back, but was placed in the special class where I saw him.

His teacher had found it impossible to associate him in work with any of the other children, but by brief individual attentions she had already made him a great deal more active and wide-awake. She taught him the Indian clubs, which he wielded skillfully. He played base-ball very well with his neighbors, and was practically free from physical defect. His growth was retarded, in fact, seemed at a stand still, and at the age of fourteen years and nine months he was only four feet seven inches and one-half in height, which is four and one-half inches less than the average. The "pre-pubertal acceleration" did not show itself until three months later; and then the gain was very satisfactory, reaching five inches in eighteen months. During the time of this quick growth he was taking thyroid extract, but as growth

had commenced to be observable before the drug was used, it remains doubtful whether the thyroid acted as an accelerator. It certainly was a moral help, which he greatly needed, as he had suffered deeply from the ridicule of his companions.

I had taken it on myself to offer him personal instruction, and saw him in my room perhaps eighty times or hours beside his regular class work. I found him quite clear in understanding elementary arithmetic, and it cost little trouble to show him the principles of fractions so as to be able to add five and seven-twelfths and six and two-thirds and nine and one-half. Bending most of my efforts to improving him in reading, I submitted him to a grammar school master eighteen months later, and found him able to read *at sight* ten lines of Dole's "Young Citizen" with ease and intelligence, which was said to be equivalent to sixth or seventh grade performance. He was certainly not up to third grade work when he began.

At the age of sixteen he had to be discharged as having reached the limit of age. He entered a store, where he got three dollars a week and gave satisfaction. Two years later he left his place on account of illness, but he is now strong and hearty, is in the state militia, and is quite proud of his continued growth in height, having now reached five feet five inches and one-quarter, at the age of nearly nineteen.

Severe difficulties were encountered in teaching him. He had a skillful instructor, trained at Barre, Mass., and these difficulties so impressed her that she could not help thinking him feeble-minded. I always insisted on the contrary, and I had later the pleasure of confirmation from Dr. Fernald, but it was very easy to show good reason for belief that his mind lacked something on the linguistic side.

To me the case appears rather one of tardy growth than of positive defect. To this tardiness, which in itself was an obstacle to success in school, was added the stupefying effect of adenoids—the "aproxexia"—which lasted for years. When they grew tired of him in the primary grades he was promoted to a grammar grade, and there made a temporary shift to keep up by dint of a knack at catching the sense of what was going on, without exactly reading the book. He was never specially attended to, and his defects grew worse.

These defects when I first saw him, were the following:

1. Positive inability to follow my instruction for more than five minutes without complete exhaustion, shown by physical signs. By degrees he became able to apply himself satisfactorily for a full hour at once.
2. Memory very poor in all that related to the art of reading.
3. Defective power of distinguishing the vowel sounds. He could not distinguish between *e*, *a*, and *i* with any certainty, nor isolate and reproduce a given sound. He knew the word *kat*, but could not draw the inference as to how *mat* or *pat* should be pronounced. Neither could he join sounds to form a syllable, or syllables to form a word. These defects were at first apparently pathological, but they have mainly disappeared under instruction, and I think they were largely due to lack of training. A fourth pecu-

liarity was his annoying habit of guessing at the import of a printed word: he would read "March" instead of April, "arms" for hands, "oh dear" for order, "Africa" for America, "places" for spots, "grasped" for seized. This habit may have been the legitimate out-growth of exclusive use of the "word method" in teaching reading. At all events, he was by degrees taught phonics, with excellent results.

5. Certain mental preoccupations made him unable to say wasp (he called it wops); when asked to say manger he called it inevitably mangle. But these queernesses disappeared.

These matters may be commonplaces. Their importance lies in the fact that they led some trained observers to believe the boy feeble-minded, to his great injury and suffering. In concluding these remarks, I wish to mention those points in him which, taken together, indicate that he was not of the feeble-minded type.

In the special class he was alert and observant of the doings of those around him; was kind and tactful with the children, and very helpful in assisting them on proper occasions, as in gymnastics. He invented useful little plans for aiding them to learn to write. His address was modest; his manner reserved, not childish; his affections normally responsive, but not lavished. Apart from books he was purposeful, reliable, sensible, understanding the world about him as well as his playmates, and impressing those who met him (except his teachers) as a normal boy. His tastes are for the theatre, gymnastics, ball play, and local politics; he interested himself actively in a petition to the city government relative to play grounds. His logical powers and his comprehension of arithmetic are good. His conversation takes spontaneously a wide range, and is that of a fairly intelligent boy. I have never known him to do an injudicious act, to say a foolish thing, or to fail in good manners.

In this summary of favorable traits, I venture to suggest that we are nearer to the true criteria of feeble-mindedness than we are if we rest a verdict on scholastic tests. They belong, in a word, to the type of person who can take care of himself.

DISCUSSION

President Johnstone: I am very sure the association would be glad to extend the privileges of the association to the gentlemen who are present and welcome them to all of our gatherings.

Judge Gould: Mr. President, if your invitation is to discuss with you any technical work that you gentlemen and ladies have to perform, I shall be unable to contribute anything. I listened with a good deal of pleasure to the paper that was just read regarding the case that was deemed to be on the border-line. It raised in my mind this question: How much attention can you in an institution of this kind with your large population, give to each individual case? Take the case referred to. There was a young lad who was in need of that personal and constant attention which it would seem to be

impossible to give to each of the inmates of an institution of this kind. Is there any way in vogue or can any way be contrived by which these individual cases may be taken up for the purpose of developing any latent powers that they may possess. It is of course well known that there are all grades of intellect within as well as without these institutions, and when a human being is so deficient in intellect that it is found necessary to send him to an institution of this kind, he ought not to be thereby precluded from receiving that personal attention and assistance that is necessary to develop the best that is in him. It has occurred to me that there might be some inmates of these institutions who are simply deficient because they have not had that personal attention which was necessary to bring out the best that was in them. May you not have, for instance, in this institution some who, if they could have this personal attention, might develop into self-supporting citizens? This fact has suggested itself to my mind in connection with this paper. A course of that kind would necessitate great patience on the part of somebody; it would require perhaps a larger force of employees in the institution. It is probable that you might classify them so as to reach perhaps a class who might not belong in the category so far as their mental abilities go. You could distinguish of course, between those for whom there is no hope,—no possible hope, and those for whom there is some hope. How much is being done, and how much can be done along the line of this personal attention to each individual in these institutions?

Dr. Thompson: In answering the question of Mr. Gould, I will say that as far as our work is concerned in Missouri, while our institution is young, and our school work has only recently been commenced, we endeavor when we receive a child at the institution to make a special study of his condition so that we may classify him and place him where he rightfully belongs. If, upon examination we find that he is backward or feeble-minded, or whatever his condition may be, we endeavor to give him such special attention as his case may require. Now it may appear that having so many inmates in the institution, that that may be impossible to do, but I have in my experience found that teachers are always perfectly willing to give every child all the attention that was required, and we have never so far placed so much work upon our teachers but what they were able to do this. I think the question asked by Mr. Gould is well worth an answer. It is an inquiry into what we really do in our institutions.

Dr. Rogers: The question that the Judge has raised is a very pertinent one, and one that is very often raised. It involves quite a number of considerations. In the first place it is true that no person upon a cursory examination of a child, can tell what his possibilities are. It is only by working with a child a greater or less length of time that they can be determined with any degree of accuracy. It is true that an idiot is usually recognized at once, but there are many individual children whose mental status is not easily recognized. It is often very hard to draw out their latent possibilities and so to determine them, and in a large institution it is sometimes a serious matter just how a child should be classified. This brings us to the consideration of

another important question which is often discussed, and that is, that very much depends upon the personality of the people in direct charge of the children wherever they are sent. I know I am always particularly alert to know if any child in any department, may not be susceptible to further development by a change of environment. I believe we have in our large institutions many children assigned to the custodial department that if they could have closer personal care and instruction would be improved to a much greater degree.

Now on the other hand we are obliged to keep in our training schools proper, many children that we do not believe actually belong there, when we consider the good of the whole. Why? Because an institution supported by the public is in a measure obliged to consider the sentiment of individuals, and we often have to deal with people who insist upon a certain amount of systematic training for their children, even when we know that it is absolutely useless, and in such cases the children are kept in the training school simply because of the satisfaction it affords these parents. Then again, there are the children spoken of, of the type referred to by Mr. Lincoln and to which the Judge referred. While I did not hear all of that paper I got just enough to get its general character. These children are always so persistent along some particular line that it makes their possibilities evident sooner or later. I know of one instance in Iowa where a boy was generally considered an imbecile beyond all possibility of education in the public schools, who became an exceedingly successful man,—a salesman for a large Chicago house, but there was something about that boy, that while on first appearance he was considered feeble-minded, kept coming to the surface. There was a persistent following of certain lines that would never down, and after a while it was recognized that he had force of character and that when he started to do a thing he did it a little more slowly than others perhaps, but did it right.

So with a child in an institution, if he really has actual ability, it will show itself after awhile. In any of our institutions whether large or small, where the management is at all on the alert, and where the individual employees,—attendants and nurses, are at all qualified for their duties, there are probably very few children of the type mentioned in the paper that are passed unnoticed.

Where a child is typically feeble-minded, it means that there is an arrest of the mental development. For a course of years the natural faculties of the child have not been exercised and consequently sensations that are constantly produced in the normal child and that leave impressions upon the brain from which ideas are afterwards developed, do not leave such impressions. There is lack of sensory activity, and as a result there is nothing upon which to build up knowledge for the future which exists in the normal child. Now if the sensations that are registered in the brain of the normal child are not registered upon the brain of the feeble-minded child, and the latter passes through the years of its first development up to seven, and then through the next period from seven to twelve, in this way, it is unreasonable to expect that the lost time can ever be made up, because it would

mean that the brain activities of that child must be many fold more active than those of the normal child, to acquire this foundation for ideas and knowledge in the future. In the case of the border-line child those activities while not as many as in the normal child are numerous enough to have left their impressions and then he possesses that something which we call good common sense, which we speak of as judgment, that has developed to a certain extent in that child, which is absent in the typically feeble-minded child. There is a persistence of character in these cases that makes itself felt sooner or later.

Dr. Wilmarth: If I remember the paper rightly this child did not stay in the school for the feeble-minded any length of time. He left before he had any chance to have something made of him, or any judgment could be formed. I think all of us have seen one or more cases of that kind. I have in mind two or three cases that have come under my observation,—one especially where natural obstinacy caused the trouble. In all probability if this boy had stayed and been under the observation of Dr. Fernald long enough to determine his character, he would have been discharged. As a rule cases are not retained in institutions that do not rightfully belong there. These children are sometimes called border-line children, but I may say that in spite of bodily growth and increased experience, they never acquire, as Dr. Rogers has said, sufficient judgment to carry them safely on their way.

Dr. Thompson: I would think that this boy, from his description would have been a proper person for an institution of this kind. While the outcome in this case was favorable, and such as we would desire, yet, I know of a number of cases of children that were considered backward that were placed in school where they did not improve and became the subjects of the jokes and sport of the normal children. As a result they became discouraged and ran off and left school, their parents being unable to keep them there. The consequence was that they grew up without an education and often times fell into bad company and became wrecks. Now it seems to me that our institutions would be the proper place for children of that kind. We would take them in and instead of being backward they would be otherwise in comparison with the other children. We could give them special attention, we could develop them faster than if they were with normal children. It would seem that the backward child especially should be taken into our institutions because we could do so much for him.

President Johnstone: Are there any further remarks?

Judge Gould: A further fact occurred to me while listening to the discussion. I believe it is a general law that development depends upon exercise,—that exercise in other words is essential to proper growth or physical being. Now, any particular child who may receive, as Dr. Rogers says, only faint impressions at first, may he not by proper exercise later on, be able to retain these impressions if he is personally attended to? Then again, some children who are deemed abnormally dull may have in them possibilities in some particular line which the general public or the parents

may not yet have discovered, but which close scrutiny by a competent person in an institution of this kind may discover and develop and make of them useful and valuable citizens in some particular line, which the ordinary observer might not have suggested.

Dr. Rogers: Mr. Chairman, I think the statement of the Judge is true, but the limitations must always be remembered: if one is considering a typical feeble-minded child. That child's judgment is always limited. While he may learn to do things correctly, technically, can make just as good a brush, can drive a team of horses just as well,—if he doesn't lose his temper and thrash the team to death,—as anybody, yet there is always a lack of self-control and of those qualities which are necessary to make a success of life. The one characteristic of the feeble-minded child is the *lack* of that judgment,—the proper estimate of the relation of cause to effect. Consequently while he can do technical things if somebody will act as guardian for him, and will do them correctly, yet there are certain fixed limitations. Just as soon as our people get out into the world and are hired for service it is found that they cannot be trusted to do for themselves, or to plan their own work, or be left alone to carry out instructions if new combinations come up, or adapt themselves to new circumstances, and then employers do not want them when it is possible to secure other help. That is the universal experience.

Dr. Mogridge: Judge Gould's question as to whether we have in our institutions children who never ought to have been sent there, is one that is often asked by layman and physician. But when you think that we are not receiving twenty or thirty new cases every day, that we receive these children one by one—perhaps in the course of a month at Glenwood we receive half a dozen—you can see that there is but a slight possibility of such a thing occurring. Concerning the majority of the children there is no question about their mental capacity. They are either low or medium, or rather what is termed a low grade of imbecile—the great majority of them. Once in a while we get one of the better class and then the question of a closer analysis comes up and it is made. Ad of you gentlemen have the same experience. You are not receiving high grade imbeciles all the time, or moral imbeciles. And as I say the examination, the analysis, is made: it is made by the superintendent, is made by the assistant physicians, is made by the principal of the schools, is made by the teachers, and by the attendants, and so it goes down the line, and if the child is, or is not, a subject for the institution it doesn't take very long to find it out. And then again I find this: The parents are very loath to admit that their child is feeble-minded. One of the safe-guards, one of the very great safe-guards against receiving children into the institution that don't belong there is the solicitude of the parents and friends. They don't bring a child to the institution unless they are clearly of the opinion that he is feeble-minded, and it is hard to get them to admit that their child is feeble-minded. I think that is one of the safe-guards against admitting such a child as this border-line case. In other words, we are on the alert I believe at all times to analyze the

child's mental condition. We want to keep out the normal child, we don't want the normal child. We want the abnormal child; and when we get him we want to keep him. We want to educate the brighter ones and do all that is possible for their welfare and keep them out of mischief that comes from lack of an education, judgment and will power. We want to make the life of the feeble-minded child pleasant, teach him all we can, but we certainly want to keep him so long as he shall live so that we shall not have any more from that source.

President Johnston: We will have to continue this discussion tomorrow morning. Dr. Rogers informs me that he has an announcement to make regarding supper. I think there is to be four minutes between the announcement and supper. I will now announce the committees and ask them to report Saturday morning.

LIGHT THROUGH BROKEN WINDOWS

MARGARET F. BANCROFT.

EXPERIENCE in every sense of the word, is the only road to truth. Leonardo da Vinci calls experience "The Mother of Science." It is by the vast accumulation of individual experience that mankind grew out of primitive savagery to its state of modern culture.

The present object is to present some views that are the outgrowth of some twenty years of experimental work with mentally deficient children; especially some ideas relating to the "light" or hidden life behind human organisms. Othello exclaims, "Put out the light, then put out the light." I shall therefore take as the basis of my thought, that the psychic "light," life and personality are one, no matter what you may call it.

In the very lowest form of life, *(the amoeba)*, the beginnings of all physiological processes are found; such as contractibility, irritability, assimilation, metabolism, respiration and reproduction. In the growth of the amoeba we find the first efforts, as it were, when life pushes its way into the sense world by means of a physical manifestation. The human organism, the highest of all, makes precisely the same efforts. In it the ego—the personality—or the individuality, endeavors to work its way into and become manifest in the world of sense by means of the brain and central nervous system, just as in the amoeba we find the manifestations of intelligence in the cell substance, which has no nervous system.

Therefore, I am with those who believe that which we commonly call "the mind", is the soul light working through and utilizing the bodily organs of sense. In a normal person, the brain and the central nervous system act as the windows of the individual personality.

As yet I have not been able to completely collate these elements of

experience into a scientific philosophy. Therefore, the orthodox scientists may think my views unfounded. Notwithstanding this possible criticism, I firmly believe that the time is near at hand when we shall be able to furnish substantial evidence which will prove not only the existence of a personality, but of an ego that lives and feels, even though its full expression may be obscured by an absence, or a disease of certain portions of the physical structure, and that this personality likely persists after all apparent physical conditions have disappeared.

The trend of thought in this direction will also become apparent by a careful study of many of our recent works on biology and psychology, among which may be mentioned the works of Wundt and of Romanes; "Primary Factors of Organic Evolution" by Cope; the English translation of Verworm's "General Physiology"; "The Genetic Energy of Organisms" by Williams (this article may be found in "Science" May 27, 1898); Sandeman on the "Problems of Biology"; "From the Greeks to Darwin" by Osborne; "The Story of the Living Machine" by Conn; and the writings of Dr. Richard Hodgson, Dr. F. W. H. Meyers, Dr. Hyslop, Dr. Oliver Lodge and the official records of the Society of Psychical Research.

If you read carefully any of these works, or parts of all, you can get an idea of both sides of the question as to the existence of life with or without the physical attributes.

The broken many stained and pictorial windows through which the light is struggling under disadvantages to harmonize itself with the physical world at large are found in three classes of persons; the mentally deficient, the morally deficient, and the insane. In these, the light is there, but the images, as in a broken cathedral window, are more or less shattered and confused.

It is not easy to clearly define what is meant by mental deficiency. I have ventured one definition which seems at least to avoid some of the difficulties. Mental deficiency is the lack of some part, (greater or less) of the brain and central nervous system, or the incompetency of these parts to respond to the efforts of self-expression. When this lack is so pronounced that there is little or no acquaintance with the world of sense, we have the very lowest form of mental "lack", frequently accompanied by some great disfigurement of the body. Persons so afflicted are called monstrosities.

In the second grade, we have children mentally deficient from gross brain alteration and not capable of marked advancement by reason of absence or serious defect in the greater portion of the cerebral hemispheres. Here the pathological conditions are such as to be almost irremediable; and the net result of treatment may be merely the modification of some established habits.

In the third grade, are children who are capable of greater intellectual advancement than those of class two; where the destruction or defect is limited to certain functioning areas of the brain or of one hemisphere, such as the auditory, motor, or occipital centres. With these there is less obliteration of latent or actual mentality, and more can be accomplished by training.